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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,937	12/13/2002	Guillaume Calot	Q67858	8753
23373	7590	05/12/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			PEREZ, JULIO R	
			ART UNIT	PAPER NUMBER
			2681	

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/019,937

Applicant(s)

CALOT ET AL.

Examiner

Julio R Perez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6-16 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-16 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-2, 6-16, 25-27, have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 6 and 27 are objected to because of the following informalities:

Regarding claim 6, the claim recites, "A method according to claim 41, wherein" in line 1. The examiner is interpreting it as "A method according to claim 1." Appropriate correction is required.

Regarding claim 27, the claim recites, "A method according to claim 2," The examiner is interpreting it as "A method according to claim **26**," Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,6-16, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart et al. (6314269).

Regarding claim1, Hart et al. disclose a telecommunications method using non-geostationary Earth satellites and in which the Earth is divided into areas (col. 1, lines

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65-67; col. 2, lines 8-9) inside which calls involving terminals in said area are relayed by a management station and a communication between each terminal and the management station is realized via a satellite (col. 1, lines 65-67; col. 2, lines 1-4; Fig. 2, the system comprises satellites, and control stations around areas on earth), another satellite taking over a call when the former satellite is no longer used, commanding handover of calls from one satellite to another makes use of predetermined times during which at least two satellites are simultaneously visible from the area or from a portion of the area (col. 2, lines 23-34), wherein call handovers are realized collectively for a plurality of terminals (col. 2, lines 23-41), wherein in determining the handover time for each terminal, allowance is made for the power available and/or the availability of communication resources (col. 2, lines 23-34), and wherein handover times are commanded so that they can be distributed over all the terminals during the period of double visibility of the satellites (col. 2, lines 23-34, 51-61).

Hart et al. do not explicitly disclose, wherein the terminals being stationary.

However, Hart et al. strongly suggests the use of fixed terminals in the same communication system (col. 11, lines 20-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the system as taught by Hart with means to use fixed terminals because it provides the system with capabilities to have better reliability, stability, quality, and cost effectiveness as provided by fixed terminals.

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Regarding claim 2, Hart discloses, wherein handover of calls involving the terminals from one satellite to another is commanded from the management station (col. 1, lines 65-67; col. 2, lines 1-4; col. 3, lines 33-61).

Regarding claim 6, Hart discloses, wherein the handover times are distributed so that the resources used by each satellite are substantially the same (col. 2, lines 23-34).

Regarding claim 7, Hart discloses, wherein the times of handover of calls from one satellite to another are predefined for each terminal (col. 2, lines 58-67; col. 4, lines 36-64).

Regarding claim 8, Hart discloses, wherein call quality is monitored for each terminal and a call is handed over to another satellite ahead of time if the call quality for a terminal falls below a predetermined threshold, for example because of masking (col. 2, lines 10-15, 58-67; col. 4, lines 36-64).

Regarding claim 9, Hart discloses, wherein a call is handed over to another satellite ahead of time if said other satellite provides a communication capacity greater than that of the former satellite (col. 2, lines 58-67; col. 4, lines 36-64).

Regarding claim 10, Hart discloses, wherein the terrestrial areas are fixed (col. 2, lines 35-41).

Regarding claim 11, Hart discloses, wherein the resources allocated to a terminal for a satellite include a carrier frequency and a plurality of codes, especially Hadamard sequences, and/or time slots (col. 2, lines 43-61).

Regarding claim 12, Hart discloses, wherein a single system for allocating resources is provided in each terminal and/or the management station and said

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resources are duplicated during a handover period (col. 1, lines 65-67; col. 2, lines 1-4; col. 3, lines 33-61).

Regarding claim 13, Hart discloses, wherein two cells, packets or other signals to be relayed simultaneously via two different satellites have different carrier frequencies and preferably the same codes (col. 1, lines 65-67; col. 2, lines 1-4, 43-61; col. 3, lines 33-61).

Regarding claim 14, Hart discloses, zero power is allocated to signals on the second path before handover and zero power is allocated to signals on the first path after handover (col. 1, lines 65-67; col. 2, lines 1-4, 43-61; col. 3, lines 33-61).

Regarding claim 15, Hart discloses, wherein non-zero powers are allocated to both sets of cells or packets during a transition period, for example equal to a cell or packet time slot (col. 1, lines 65-67; col. 2, lines 1-4, 43-61; col. 3, lines 33-61).

Regarding claim 16, Hart discloses, wherein the powers allocated to the duplicated cells or packets are monitored (col. 1, lines 65-67; col. 2, lines 1-4, 43-61; col. 3, lines 33-61).

Regarding claim 25, Hart discloses further comprising a system for allocating the terminals carrier frequencies divided into non-contiguous subsets, two carriers from the same subset being chosen to hand over a call from one satellite to another (col. 1, lines 65-67; col. 2, lines 1-4, 43-61; col. 3, lines 33-61).

Regarding claim 26, Hart discloses, a management station for a telecommunication system in which terrestrial areas are defined (col. 2, lines 10-15, 35-41), each terminal in an area communicating with the telecommunication system via a

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management station in the corresponding area, calls between the management station and the terminals being relayed via a satellite (col. 2, lines 10-15), means being provided in each terminal for commanding handover of calls from a first satellite to a second satellite (col. 2, lines 23-34), using predetermined times at which at least two satellites are visible simultaneously in that area or in another portion of that area (col. 2, lines 23-34), wherein, the handovers of calls being realized for a plurality of terminals (col. 2, lines 10-15, 23-41), it comprises, for determining individual handover times for each terminal a function of the allocation of power and/or communication resources (col. 2, lines 23-34), periods of handover from one satellite to another being commanded so that they can be distributed over all the terminals during the period of double visibility of the satellites (col. 2, lines 23-34, 51-61).

Hart et al. do not explicitly disclose, wherein commanding said handover of calls involving stationary terminals in the area or in a portion of the area.

However, Hart et al. strongly suggests the use of fixed terminals in the same communication system (col. 11, lines 20-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the system as taught by Hart with means to use fixed and mobile terminals because it provides the system with capabilities to have better reliability, stability, quality, and cost effectiveness as provided by fixed terminals.

Regarding claim 27, Hart discloses, wherein the handover times are distributed so that the resources used by each satellite are substantially the same (col. 2, lines 23-34).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pat. No. 5867765 to Nilsson

Non-Geostationary satellite mobile
system

Pat. No. 6122507 to Gerard et al.


Call handover in no-geostationary
satellite constellation

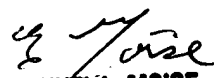
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio R Perez whose telephone number is (703) 305-8637. The examiner can normally be reached on 7:00 - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 703-306-0003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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5/5/05


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